

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XXXIX.

WEDNESDAY, JANUARY 17, 1849.

No. 25.

LATE TRIAL FOR ALLEGED POISONING WITH ARSENIC.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—The following brief synopsis of a late trial at Worcester, for murder alleged to have been committed nearly FIFTEEN YEARS ago, was prepared, at your request, while attending as a witness for the Government.

John Cook, Jr., formerly of Ashburnham, now of Winchenden, was brought to trial Dec. 7th, 1848, in the Supreme Judicial Court, on an indictment charging the murder of his wife Roxanna in February, 1834, by administering arsenic. Chief Justice Shaw and Associate Justices Dewey and Metcalf on the Bench. Hon. Ezra Wilkinson, of Dedham, Attorney for the Commonwealth. Hon. Benjamin F. Thomas, of Worcester, and Milton Whitney, Esq., of Fitchburg, counsel for the prisoner.

On the part of the Government, evidence was introduced to show that Cook was 12 years younger than his wife; that they were married two years previous to her death; that she had considerable property, which Cook unsuccessfully strove to get possession of. Early in February, 1834, Cook bought arsenic of Dr. Pierce in Ashburnham. Mrs. Cook was a woman of good health, and had an infant child 2 months old. On Sunday, February 23d, 1834, about 4 o'clock, P. M., Cook drew some cider and urged his wife to drink, telling her it had kept very sweet. In a few minutes after drinking the cider, she had severe pain at the stomach, and made ineffectual attempts to vomit. Pain and sickness became violent and paroxysmal. During the evening Cook gave his wife hot sling, which aggravated her distressing symptoms. He repeatedly refused to go for a physician, till nearly morning, when Dr. Wm. H. Cutler was called. He found her lying on a bed in great distress at the stomach, the pulse small, the extremities cold, the bowels much swollen—and noticed frequent ineffectual attempts to vomit. She was nearly comatose, and never spoke after he saw her. An emetic of ipecac. and sulph. zinc and purgative enema failed to produce either vomiting or dejections. She died at 10 o'clock, A. M., on Monday, 18 hours after drinking the cider, at which time she was in perfect health. Cook refused to have a *post-mortem* examination; would furnish nothing but his wife's *wedding dress for a shroud*. He was away from home when his wife died. When informed of her death, he made no reply.

He was then walking towards his own house, in company with a girl 11 years younger than himself, whom he afterwards married. Soon after the death of his wife, Cook secured the money concerning which there had previously been some altercation.

The body of Mrs. C. was placed in a tomb. For several years afterwards it was observed, by the sexton and others, that the body continued in an unusual state of preservation. Ten years after death, the sexton, a very intelligent man, testified he could have identified the body by the *features alone*, while other bodies, entered afterwards, were totally decayed. In October, 1847, Mrs. Cook's coffin was again opened, and the chest retained its rotundity, the integuments being entire, the face and limbs being then decayed. The fact that Mrs. Cook's body exhibited such apparent tokens of preservation in the region of the stomach and chest, together with the fact that many bodies whose sepulture in the same tomb at dates much more recent, had become totally disintegrated, served to revive and heighten suspicions which existed against Cook at the time of her death. In February, 1848, by request of the relatives, the remains of Mrs. Cook were obtained by my partner, Dr. Leonard French, and Mr. Wm. L. Lincoln, a medical student, and by myself delivered to Prof. Webster, at Cambridge. These remains consisted of all the matter of the stomach and intestines; as whatever now remained in that portion of the coffin occupied by the abdominal cavity, its walls and contents, was taken up with a spoon and deposited in glass jars, which were closed and sealed. There was no reason to suspect that this matter had been in contact with the earth, or any source from which arsenic or other poison could have been derived. There was no plate on the coffin. The sexton was present and identified the body. All the manipulations in obtaining, securing, and conveying the remains to Prof. Webster, were conducted with the greatest care, and without the possibility of mistake. From these remains, Dr. Webster testified that he obtained, by chemical analysis, a little more than four grains of oxide of arsenic (white arsenic); which is equal to 3 grains and 16-1000 of metallic arsenic. A portion of this arsenic was exhibited at the trial.

A detailed report of Prof. Webster's analysis of this interesting case has been published, from which I transcribe the following:—

“The sealed jars with their contents were delivered to me on the evening of the 14th of February last by two medical gentlemen, one of whom had attended to the collection and removal of the remains. The seals were unbroken. They were taken to the laboratory of the Medical College and there opened, when a faint disagreeable odor was perceptible, but far less offensive than had been anticipated. The contents of both jars were turned out into a large wedgwood evaporating dish. They were dark, with different shades of brown and black; the whole were moist, but broken up into many small lumps, some of which had considerable firmness and consistency. Portions of membranes were enveloped in the mass, one of which was apparently part of the stomach or intestines, but so much changed that it was impossible to determine which.

It being improbable that any vegetable or organic poison was present, I proceeded to examine separate portions with a lens, but no particles of arsenic or other mineral substance could be detected. Of the mineral substance usually had recourse to as poisons, none appeared more likely to be found, if any such had been administered, than arsenic, or one of the oxides of that metal, and it seems pretty well settled that the oxide, known as arsenious acid, or ratsbane, resists decomposition more effectually, and for a longer time, than any other mineral poison commonly used. In recent cases of poisoning with this substance, I have more than once been able to detach minute portions from the inner surface of the stomach, particularly in another case upon which I had been engaged a few weeks before this time. It may not be superfluous to state, as showing in some degree how frequently arsenic is employed, or suspected to have been the cause of death, that in the course of the preceding three months no fewer than four cases were submitted to my examination, in two of which arsenic was found.*

As it was impossible to obtain any satisfactory results by acting upon the mass of matter from the jars without previous solution, and as it was deemed important not to limit the examination to the whole solution at once, but to subject the matters to all the chemical processes which were calculated to elicit and confirm the truth, the mass was divided into separate portions.

One portion was boiled in pure distilled water for nearly an hour, and strained; the animal matter was coagulated by chlorine, which was subsequently expelled, and the clear solution was treated with hydrosulphuric acid. A part of this solution was tested by the usual methods, as with nitrate of silver and ammonia, sulphate of copper and ammonia, lime water, &c., in presence of the gentlemen attending at that time the medical lectures in Boston. With these tests, and also with hydrosulphuric acid, the presence of arsenic was distinctly indicated. No reliance, however, was placed on these preliminary trials, beyond the mere indication that arsenic was probably present.

Another portion of the remains was treated with nitric acid and nitrate of silver, and similar indications resulted.

Having obtained these indications of what was present in the remains, it was necessary to separate the substance, and in such a state that both its physical and chemical characters might be made out beyond question. For this purpose, and as the quantity of poison remaining was not supposed to be large, one third part of the remains left after the preliminary trials, was subjected to the action of sulphuric acid, and completely carbonized, or converted into charcoal; the purity of the acid, and especially its freedom from arsenic, having been previously ascertained.

Another third was heated with hydrochloric acid and chlorate of po-

* The facility with which this deadly substance is obtained, probably in all country towns and villages, being kept for sale in the common shops and stores, where it is liable to become mixed with flour and various other articles of daily use—and the frequent accidents, as well as intentional improper use of it, that occur—call for some efficient means of security. The keeping arsenic for sale, and the sale itself, should only be permitted to druggists, and no one be allowed to deliver it except to a responsible person, or to a written order from a medical man of known responsibility.

tassa, filtered and reduced by careful evaporation. That any arsenic acid present might be brought to the state of arsenious acid, the liquid was treated with sulphurous acid.

The remaining third part was treated with pure nitric acid, as employed by Orfila in the case of Cumon.

From these three portions, as many distinct, clear solutions were obtained, each of which was separately again tested, and each gave indications of arsenic.

Each of these solutions was again divided into three parts, and each part was subjected to the three following processes.

One portion of each was examined by the apparatus and process known as Marsh's. In this, hydrogen gas is obtained from zinc, sulphuric acid and the suspected solution. That all doubt as to the purity of the zinc and acid might be removed, and especially their freedom from arsenic, and also that of the apparatus, pure distilled water was first used. The hydrogen was evolved and continued a sufficient length of time to satisfy me that no arsenic was present. Had there been even a minute quantity it would have been taken up by the nascent hydrogen, and have caused a peculiar change in the appearance of the gas while burning, and other effects sufficient to detect impurity.

The apparatus, after thorough cleaning, was now charged with a fresh piece of the zinc, acid and solution, from the remains; the hydrogen evolved was ignited, and the blueish tint of the flame at once indicated the presence of arsenic. The flame was then brought in contact with a white surface of porcelain, and dark spots were produced; the same took place when a piece of clean window glass was held over the flame. Aware that other metals, if present, might produce similar spots, especially if the gas was rapidly evolved, the process was allowed to go on very slowly and continued nearly an hour.

The spots were tested and were arsenical.

Another portion of the solution was now used with the same precautions as before, and the gas was transmitted through a fine tube of glass, containing no arsenic or lead in its composition, and capable of bearing a high degree of heat. As soon as the hydrogen had displaced the air, and was issuing from the open end of the tube, a spirit lamp was placed beneath its central part and that was heated to redness. The decomposition of the gas took place, and a metallic looking crust was formed within the tube, a little distance beyond the red hot portion. No deposit was observed in the hot part of the tube, which would have occurred had any other metal than arsenic been present. The process was kept up as slowly as possible, and continued over two hours. The metallic deposit was then carefully collected and tested in various ways, so as to leave no doubt as to its nature,—it was arsenic.

The process of Marsh has not proved as infallible as was anticipated when it was first announced, and it was found that antimony, for instance, which may have been administered to a patient in some one of its forms, would give a compound gas with hydrogen that burns with a flame, the color of which is so similar to that of arseniuretted hydrogen, the two

might readily be confounded ; and, moreover, that a similar stain would be produced by antimony upon the porcelain. Fortunately it was discovered that all doubt could be removed by the very simple modification of the apparatus and process above described. The arsenic, if present, is volatilized in passing along the hot part of the little tube, and condenses in the cool part, but antimony fuses and retains much lustre.

The tube was now detached from the apparatus and the metallic crust was heated ; brilliant points began to appear in the upper part, which increased in size and number until distinct octohedral crystals with high lustre could be distinguished by the naked eye. There could be little, if any doubt, that they were crystals of arsenious acid.

To leave no doubt on this point, the crystals were dissolved out by boiling water, and the solution again tested ; the result confirmed the previous one.

Another portion of the solution from the remains was treated with hydrosulphuric acid gas ; a copious yellow precipitate was obtained, also indicating the presence of arsenic. But although much reliance has been placed upon this test, it is by no means conclusive ; for several substances may be present which will give a yellow color when there is no arsenic. The yellow sulphuret of arsenic may, however, be distinguished by reduction, and if arsenic is present, it is easily separated and obtained in the metallic state, in a small tube, and can then be converted into arsenious acid, and crystallized as before described. This was done, and the result confirmed the other experiments.

Another process to which portions of the suspected solution were subjected, consisted of boiling slips of bright copper in the liquid, with a small quantity of hydrochloric acid, known as Reinsch's process. This process is not so delicate as Marsh's, but gives very satisfactory results, with proper precaution, and was resorted to as confirmatory of the other experiments. By this, the arsenic is deposited upon the copper, and can be removed and subjected to the other tests. As to the quantity that can be detected by Reinsch's process, Dr. Christison, high authority, tells us it will detect "at least a 250,000th part of arsenic in solution." Others say it will detect a 3000th of a grain in 90,000 times its weight in water. But the production of a mere stain upon the copper is not decisive. The copper may be thus tarnished when no arsenic is present ; it may be occasioned by organic matters. It is not a process to be solely relied upon for medico-legal purposes. The production of the metallic crusts, and their conversion into arsenious acid and reconversion to metallic arsenic, in each case fully tested in other ways, can alone satisfy the operator.

The most complete method of distinguishing arsenic from antimony, is by converting the arsenical stain into chloride of arsenic, by exposure to chlorine ; the chloride may then be converted into the pale yellow sulphuret, which, with ammonia, affords a colorless solution ;—by heat the ammonia is volatilized, and the yellow sulphuret is reproduced. The action of nitric and hydrochloric acids, and subsequent evaporation to dryness, afford white rings of arsenic acid, which deliquesce and become invisible ; and the deliquesced acid gives, with nitrate of silver, the dirty

red stain of arseniate of silver. According to M. Divergie, this series of actions is conclusive. But we have no statement how small a quantity of arsenic or antimony may, in this way, be distinguished.

As the fact to be ascertained in the case of Cook was of such vast importance, and no case, as far as I have discovered, is on record where arsenic had been detected after the lapse of so many years, it was deemed imperative on me to subject the solutions obtained from the remains, to every form and method of examination which could throw light upon it; hence, although I have used the terms *tube*, *solution*, &c., it has been done for the sake of brevity, but in fact several distinct portions of the liquid and several tubes were employed—and the fact that arsenic was present in the remains, I consider fully established. How it came to be there, I was not called upon to inquire.

In regard to the question, always, I believe, asked in judicial proceedings, as to the antiseptic power of arsenic, deemed of so much importance in the present case, it does not appear that the popular notion is fully sustained. Experiments have been made by Lager, on the bodies of animals poisoned by arsenic, which go to show that it neither retards nor hastens putrefaction. Seeman's experiments upon dogs show that their bodies putrified as usual. It is probable that the antiseptic power of arsenic has been much over-estimated.

Still there can be no doubt that arsenious acid combines with the fatty and albuminous tissues, and forms compounds which are not susceptible of alteration under ordinary circumstances; and some instances have occurred where the bodies of persons poisoned by arsenic have been found, long after death, in a remarkable state of preservation. In some of these the stomach and intestines have been preserved, although the general mass of the body had disappeared, leading to the detection and bringing to light of crimes committed many years before.

Another question is probably always put to a witness in a case of suspected poisoning by arsenic, viz., What is a fatal dose? So many and various are the circumstances and conditions, that it is doubtful if any definite answer can be given. We have the case of Bertrand, who took five grains on an empty stomach, with no ill effects—and we have high authority that four and a half grains is a fatal dose. In a case in New York, an ounce was taken, and the pain in the stomach was but slight. Then, again, arsenic does not always produce violent and well-marked symptoms, although fatal. It may kill, too, by its narcotic operation, no morbid condition of the stomach being observed after death.

As to the existence of arsenic in the bones, normal arsenic, the early opinion of Orfila, that such is the fact, has not been confirmed by later researches. If found in the state of arseniate of lime, as was affirmed by Couerbe, this would not affect the question as to its presence in the stomach and intestines. In the case of Cook, no portion of the bones was examined.

But Orfila has retracted his former opinion, and a few years ago forwarded to the Academy of Medicine of Paris a statement that he could no longer extract arsenic from the bones."

A very large number of medical witnesses were called for the government, and also for the defence. No exceptions were taken to Dr. Webster's chemical evidence, and no attempt was made to discredit the results of his analysis. There was a concurrence of opinion with the physicians that the symptoms of which Mrs. Cook died were consistent with poisoning by arsenic, although vomiting and purging were absent; and also in favor of the antiseptic power of that poison. For the defence, evidence was introduced that contradicted and in some degree impeached one of the principal government witnesses. The chief Justice charged the jury favorably for the prisoner. After deliberating forty minutes, the jury returned a verdict of NOT GUILTY.

Ashby, Dec., 1848.

ALFRED HITCHCOCK.

CHOLERA IN NEW ORLEANS.

[THE following is extracted from a letter addressed to Dr. A. Brigham, Superintendent of the State Lunatic Asylum, Utica, New York, by Dr. Wederstrandt, of the Charity Hospital, New Orleans. It was not intended for publication; but in the peculiar and threatening aspect which the Asiatic cholera has assumed in the southwestern portion of our country, it is thought by Dr. Brigham, to whose kindness we are indebted for the letter, of sufficient importance for publication. It is the first and only account we have seen, from a reliable source, of the disease in New Orleans, and we therefore take the earliest opportunity of presenting it to our readers.]

On the 12th of the present month, the cholera broke out in this hospital. The two first cases were a man and a woman, who were brought, in the last stage of the disease, from the ship *Swanton*, which had just arrived from Havre. This vessel left Havre with all the passengers and crew in good health, neither was the cholera in that port when she left; but some of the passengers were from a part of Germany where the cholera was raging. When at sea two weeks, the disease broke out on board, and 17 persons died in a few days, and were thrown overboard. At the time she reached here, but two were sick on board, and they were brought to this hospital. The very next day numerous cases appeared all over the city, but principally in the houses nearest to the shipping, or among persons employed on the wharves. Since the middle of this month [December] we have admitted between 40 and 50 persons with this disease every day; upwards of 50 cases have originated in the house among the convalescents of other diseases and the attendants; three of the washerwomen have taken the disease, and two have died. The disease here seems to consist of three stages in most cases: first, a feeling of malaise and diarrhœa; next comes on the vomiting and purging of rice water discharges, and cramps; thirdly, the cold stage, with the clammy sweat and suppression of urine. The intelligence remains intact until very late. The disease has proved fatal here in so short a time as three hours. Oftener it is protracted to twelve and

fifteen, and rarely beyond twenty-four hours. The violence of the pain in the stomach, and vomiting and purging, does not always afford a criterion for an unfavorable prognosis, for many patients recover rapidly in a few hours after being so attacked, declaring themselves nearly as well as ever. About half an hour after death, the body, which was as cold as ice just before, becomes as warm as in health; and the cramps or contractions of the muscles, which annoyed the patient so much during life, continue for at least half an hour, and in some cases nearly an hour, after death.

During the first days of the epidemic, nearly all the cases proved fatal; but within the last few days it seems to be rather on the decline, as our admissions and deaths have decreased, and we begin to number many cures, or rather recoveries. We treat the disease on general principles, and according to the indications of each individual case. In the early stage, we have had reason to be satisfied with the preparations of opium and counter-irritants. Some physicians use a large dose of opium and quinine in the beginning, when they get their cases early; they give from thirty to forty drops, and a drachm of tincture of opium, with half a drachm of quinine, for a single dose, and speak highly of their success. In a few cases I have thought that the practice did good, but I have not used it to any great extent. When brought to us, which they generally are, in the cold stage, we use stimulants externally and internally, with nourishing broths, and several have re-acted under this treatment, and finally recovered. Males and females, young and old, are alike subjects for this disease; but far more men than women are attacked. We have seen many children die of it, some under five years, and a few old people at a very advanced age. Dr. Watson, in his very interesting and valuable Lectures on the Practice of Medicine, has given a most correct description of the disease as it now prevails among us, and I believe it to be identical with the Asiatic cholera, which he so ably describes.

I remain, very respectfully yours, JOHN C. P. WEDERSTRANDT.
New Orleans, Dec. 25th, 1848.

OVARIAN TUMOR—REPLY TO DR. WAIT.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I noticed in your Journal of the 20th of December, 1847, some remarks on a case of ovarian tumor, reported by me, and published in a former number; and as I think falsehood should be refuted and exposed, I am under the necessity of troubling you with some additional details of the case, at the same time feeling the necessity of apologizing to you for the liberty.

I was first called to see Mrs. Collins on the 28th of May, 1847. At that time I advised an operation. On the 29th I consulted with Doctors Griffin, Wait, and I believe Dr. Pitcher, and then (as before) advised an operation. Dr. Wait said he would operate if the patient and friends wished him to, but would bear no responsibility. I at that time interro-

gated him several times as to the nature and locality of the disease, and he as often waived an answer. I told him physicians who made no professional decisions, were always right after an autopsy. This he resented at the time, but still refused to give a diagnosis, from the symptoms present or former ones which he had noticed during a course of treatment of ten months' duration. On the 6th of June, I saw her again, in consultation with Drs. Spencer and Pitcher. At this time the operation mentioned in my report was performed by Dr. Spencer. The discharge was, as reported, in quantity about a pint, streaked with blood, the blood coming from the external wound and the tumor, the water from the abdominal cavity. The operator and others present know well that the trocar passed but a short distance into the tumor, probably not more than one inch and a half, the tumor yielding to, and receding from it. After this time I saw her daily, and almost daily expressed my wish to open the tumor. On Sunday, the 20th, they discovered matter oozing from the puncture in the linea alba, and they immediately sent for me. The time occupied in coming after me, and my returning with them, I called one and a half hour. In that time it discharged about a pint. I could pass a catheter but a short distance into the tumor, probably as far as the trocar passed at the time of the operation. On the 6th, a small probe would pass the remaining distance into the cavity of the tumor. No matter followed the introduction of the catheter. I enlarged the opening, passed my catheter (it was a large female catheter), and the pus was discharged freely. I was not more than ten minutes in getting the remainder of the two and a half quarts. The pus had the appearance of being confined a considerable length of time. There was no communication with the abdominal cavity at this point, the tumor having adhered to the walls of the cavity. I was particular in trying to find a passage. After this time she improved in flesh, strength and spirits, rapidly, notwithstanding the continual discharge (for one and a half or two months) from the tumor. I saw her last, previous to my report, on the first of August. At that time she had an attack of the cholera morbus from eating too many green peas. The tumor at this time was not larger than a child's head. She had visited the neighbors several times, and done considerable work, &c. Soon after this, I made my report, handed it to Dr. O. Goodrich, of Boston (about the middle of August), who was at the time on a visit to his friends in this place. What time the editor of the Journal received it, I know not. On the third of October I was called to see her. The tumor had commenced enlarging, and enlarged rapidly. On the 7th I made an opening on the right side. It discharged at the time full a quart of pus, but by the 12th the wound had healed. On the 17th I advised an opening in the opposite side, but she would not consent. On the 21st, at midnight, the family sent for me in great haste, supposing she was dying, and she did die in an hour after I arrived. Previous to her death, and on the same evening, she felt something give way (I use her own expression), and immediately her breathing became oppressed, with an anxious, expressive countenance; the undeniable symptoms of a rupture of the tumor, and a discharge of its contents into the

thorax. These symptoms increased until her death. I requested Dr. Pitcher to beg an autopsy, and let me know the result the following morning. I saw Mr. Collins in the morning, and he *declined* and *utterly refused* me an examination. I told him I would not urge the matter. The following documents, having reference to this matter, are submitted.

State of New York, St. Lawrence County, ss.

Lemuel Hubbard, the father of Mrs. Collins, and Mrs. Lucy N. Newell, sister of Mrs. Collins, being duly sworn, depose and say, that they have heard the foregoing report read; that as far as they knew the facts and understand the report, they believe the foregoing statement to be just, true and correct—that in the latter stages of Mrs. Collins's disease she was not at their house, and they did not know the particulars so well. And further, said deponents say, that they have heard read the report of Mrs. Collins's case, as printed in the Boston Medical and Surgical Journal of October 13th, 1847, and so far as they know the facts and understand the report, they believe the same to be correct.

*Sworn and subscribed this 29th Dec. 1848,
before me, H. D. SMITH, Just. Peace.*

LEMUEL HUBBARD.
LUCY N. NEWELL.

Richard Collins, being sworn, says, that he is knowing to nearly or quite all the facts stated in the foregoing report, and also in the printed report above referred to, and verily believes the statements in both reports are true and correct. That it is true that Dr. Williams applied to deponent to permit a *post-mortem* examination, which deponent declined permitting.

RICHARD COLLINS.

*Subscribed and sworn, this 29th December, 1848,
before me, H. D. SMITH, Just. Peace.*

I will add a few remarks.

1. Dr. Wait says, any opinion as to the nature or locality of the tumor, would be conjectural, and therefore he declined giving his opinion of the case; and with almost the same breath, says, *he* and all other experienced surgeons who saw her, considered her the subject of a malignant cachexia, and *he* considered the *tumor* a local manifestation of it. Here, then, is an opinion of the case, and according to his own acknowledgment entirely conjectural. Absurd as this conjecture was, he still has some few rays of consolation to comfort him, since Drs. Trowbridge, McNaughton, Lizars, and the accoucheur mentioned by Lee, had, during their lives (spent in successful practice) made as great mistakes.

2. It is no new trait in the Doctor's character to decline giving an opinion, as to the nature or treatment of a disease, during consultation; or if he does happen to give it, *he* will deny the whole, if the diagnosis or treatment were not in accordance with the results of the case. For these and other reasons, no physician (the bounds of whose practice adjoin his), will consult with him.

3. He says, the conclusion would be that the patient recovered. Let the conclusion be what it may, I made no such statement in my report, but simply stated the facts as they were at the time I wrote the article.

Every experienced surgeon knows, from every day's observation, that of all local diseases, *tumors* are the most liable to reproduction, unless removed by excision (and this not infallible); and it requires something more than a mere conjectural opinion to convince the pathologist that she died from the immediate effects of a *malignant* disease. She rested well, ate and drank hearty, was not much emaciated, and was sitting in a chair at the time she felt the rupture, four hours previous to her death. What might have been the change in her disease, or cause of her death (if she had not died as unexpectedly as she did) at some future period, I know not. Had I been favored with an examination, I should have given an impartial, physiological, and pathological retrospect of the same to the readers of your Journal, whether in accordance or contrary to my published opinion.

4. The Doctor says there was no disagreement before *him*, as to the nature or locality of the tumor. If there was none, why did *he* not operate some time during the ten months' treatment, or at the time I advised it? The *reasons* were, that there were disagreements, and that some time previous some experienced surgeons had made some sad mistakes. But let the Doctor contradict himself. *He* says, *he* would not give an opinion; *he* also says *he* gave one. *He* said, any opinion as to the nature of the disease would be conjectural, and also says it was a local manifestation of a malignant disease; *he* treated her for the disease, for ten months, but says *he* only acted as an *operative surgeon*.

5. *He* says the husband solicited an examination, and *I* declined *making one*. Both of these assertions I have shown to be false.

I did not intend to be tedious. Justice to the lovers of truth, justice to the relations of the deceased, and justice to Dr. Wait, has devolved upon me the necessity of saying what I have. I might say much more, but will close by advising the Doctor to be careful that the light with which he wishes to illumine the path of the members of the profession, be itself illuminated, lest it prove to be Milton's *darkness* invisible.

Gouverneur, N. Y., Dec. 28, 1848. PETER O. WILLIAMS, M.D.

BRONCHITIS IN A CHILD, COMPLICATED WITH DYSENTERY.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I submit the following case for your perusal, and for publication if you see fit.

I was called, on the 23d Dec. last, to see C—C—, a smart vigorous boy, aged nine months, who had been afflicted for some days with a severe catarrh, with very little expectoration, of the consistency of starch. Respiration hurried, somewhat embarrassed from accumulated mucus. Pulse frequent, small and wiry. Countenance pale, skin dry and hot. A white coating was observable upon the centre of the tongue, while the edges were red. Bowels operating regularly. Auscultation disclosed sonorous and sibilant ronchus throughout the whole thorax. Ordered thirty drops of the following prescription, to be given every two

hours:—Tr. Balsam Tolu, $\frac{3}{4}$ i.; Tr. Blood Root, $\frac{3}{4}$ ss.; Honey, $\frac{3}{4}$ ss. Also that the child should be kept in a comfortably warmed room.

Dec. 24th.—Found the patient more comfortable. Expectoration increased; respiration less embarrassed; heat and dryness of skin diminished; pulse about the same. Ordered that the foregoing prescription should be persevered in.

Dec. 25th.—Passed a restless night. Partial sweats, alternating with heat and dryness of the whole surface; expectoration the same as the day previous; mucus rattle less; pulse hardly perceptible at the wrist; five evacuations from the alvine canal. Ordered the first prescription to be continued. Also a powder to be given once in three hours, consisting of Dov. Powd., grs. i.; Piperine, grs. $\frac{1}{4}$. In the evening of the same day (25th), a messenger came, stating that the child was worse. I went immediately to see him. Found that the pulse had increased very little in fullness and force; cough diminished; expectoration, in a given number of paroxysms of coughing, was increased, so far as I was capable of judging, for very little of the expectorated mucus was visible, from the fact of the child's swallowing it. I drew my conclusions from the amount of sibilant ronchi audible, previous and following a paroxysm of coughing; and from, I hardly know what, but the appearance of the patient at the time of coughing. An observing person can tell, with a considerable degree of accuracy, the amount expectorated during a paroxysm, with a little attention to the point. Skin hot and dry; abdomen tender in the region of the transverse colon; had had some twelve or fourteen alvine evacuations, small in quantity, but the occasion of considerable pain. Ordered a continuation of the powders, together with a teaspoonful of the water of camphor, and laudanum, to be given every two hours.

Dec. 26th.—The evacuations had ceased. The patient otherwise comfortable. Omitted the powders; gave the first prescription in lieu of them.

27th.—The patient fast convalescing; no return of the evacuations. Ordered the camphor and opium tinct. to be stopped. Alternate with the first prescription and powders, one in three hours. In a few days had the gratification of seeing my patient well.

Respectfully,

A. T. WOODWARD.

Whitehall, N. Y., Jan. 8, 1849.

"THE ASIATIC CHOLERA TRACEABLE TO CERTAIN ELECTRIC INFLUENCES."

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Since the publication of an article under the above caption, written by me, which appeared in your Journal of the 29th of November last, an elaborate paper, by Sir James Murray, entitled "Deductions from Experiments on the Nature of Cholera and other Epidemics," has reached this country in the columns of the London Lancet; and you may imagine the gratification with which I find my views of the causes, nature and treatment of the Asiatic Cholera, fully sustained by the observation and

deductions of this distinguished writer. Sir James has completely exploded the antiquated theory of miasmatic influences, and says that experience has led him to adopt the "electric doctrine."

Doubtless you will lay before your readers as copious an abstract of this admirable article—of itself containing material for a large treatise—as your space will admit; but in the mean time permit me to quote a few sentences expressive of the decided views which Sir James entertains in favor of that theory which I had—at a great distance, both as regards place and ability—humbly ventured to offer to the consideration of your readers. Sir James says:—

"Being satisfied, by many *trials* and *observations*, that electric-galvanic disturbance, a want of equilibrium, was at least a *principal exciting cause* of the periodical or symmetrical diseases."—"Next, it may be supposed from the accumulation of black, magnetized blood in the veins, and the disordered signs of shocks in the eighth pair of nerves, and from other pathological appearances, that severe electric commotions were at work, producing cholera."—"Here I may briefly remark, of imitative and infectious diseases, that they are much more probably owing to electric disorders."—"Were this doctrine of *electric equivalents* to displace the theory of infection, *odious quarantines would cease to punish the innocent, and relatives would not abandon their helpless friends in time of need.*"—"The definite proportions of derangement of natural electricity, occasion definite proportions of epidemic diseases."—"The intensity of the globe's magnetism, varies at different points of its surface."—"It is said, however, that the needle *did not obey these natural attractions in Russia*, during the late awful visitation of the cholera."—"Hence we must suppose currents of electricity to circulate *within the earth*, more especially near its surface, and to be constantly passing from east to west."—"For all these reasons, and many others, I hope I am justified in attempting to point out physical relations between epidemic diseases and disturbed electricity or magnetism."—"It is to be concluded that the judicious use of long-continued galvanic passes through the respiratory and spinal nerves, is one of the most essential adjuvants that can be employed during collapse," &c. &c.

Throughout the whole paper, Sir James triumphantly demonstrates the connection between pathological disease and electrical disorder. Every reader must be convinced by this demonstration, of course excepting "W. S.", who will probably be content, like an "illustrious predecessor," to remain for ever entitled to the epitaph, "*Stet nominis umbra.*" Meanwhile, commending this vast subject to your attentive consideration, and that of your readers,

I am, &c. A. C. CASTLE, M.D.

New York, Jan. 9, 1849.

ON AN ELECTRICAL PHENOMENON OBSERVED IN CHOLERA.

BY J. C. ATKINSON, ESQ., M.R.C.S., ETC., WESTMINSTER.

I AM desirous at the present moment of directing the attention of your numerous scientific readers to a very interesting phenomenon, more or less

present in the collapse stage of cholera, which seems to have hitherto escaped the observation of medical men—viz., animal electricity, or phosphorescence of the human body. My attention was first attracted to the subject during the former visitation of that fearful disease in the metropolis. It was indeed singular to notice the quantity of electric fluid which continually discharged itself on the approach of any conducting body to the surface of the skin of a patient laboring under the collapse stage, more particularly if the patient had been previously enveloped in blankets; *streams of electricity*, many averaging *one inch and a half* in length, could be readily educted by the knuckle of the hand when directed to any part of the body, and these appeared, in color, effect, crackling noise, and luminous character, similar to that which we are all accustomed to observe when touching a charged Leyden jar. I may remark the coincidence, that simultaneously with the heat of the body passing off, the electricity was evolved; and I am therefore led to ask the question—Are not heat, electric and galvanic fluids, *one* and the same thing? Does not the fact of the passing off of both imponderable substances at one and the same time strengthen this conclusion?

Again: are not the whole of what we call *vital* phenomena produced by certain modifications of the electric-galvanic-magnetic matter and motions? And do we not find that these *vital* phenomena are continuously affected by the relative state of the surrounding electric medium? To what can we attribute the present fluctuating condition of the barometer, if not to it?

We know what wonderful *decomposing* action galvanism had on alkalis, under the hands of the illustrious Humphrey Davy; but we do not know, nor have we any conception in the present state of knowledge, of the *decomposing* action of electric matter of the atmospheric air, in various conditions, on the fluids generally of the animal body. Chemistry has failed in pointing out any ponderable material as the exciting cause of epidemic diseases.

In the treatment of Cholera, all are agreed that *non-conducting* substances on the surface of the skin aid essentially the cure; and during the disturbed state of the atmosphere, for the purpose of retaining the electricity continually eliminating in the system, we are told to wear woollen bandages, flannel, and gutta percha soles, so as to insulate as much as possible the body, to prevent the heat—the electric fluid—from passing off.—*London Lancet*.

ON QUINOIDINE.

BY F. RÖDER.

THE author has, in consequence of the results published by Liebig on the constitution of quinoidine, made some experiments to obtain from quinoidine or amorphous quinine the latter in a crystalline state. One part of commercial quinoidine is dissolved in four parts of alcohol of 0.865, and a solution of $\frac{1}{2}$ a part protochloride of tin in two parts of

water added to it. This precipitates a dark resinous mass, while the supernatant liquid is but faintly colored; it is separated from the precipitate, and quickly precipitated with ammonia. The precipitate is then well washed and dried, and exhausted with alcohol as long as this removes any thing; the united extracts are again mixed with half the former amount of protochloride of tin, again quickly precipitated with ammonia, and the well-washed and dried precipitate exhausted with alcohol, when an almost colorless solution of pure quinine is obtained, which, carefully saturated with dilute sulphuric acid, affords on evaporation crystals of sulphate of quinine.

In the liquid filtered from the precipitate of protoxide of tin and quinine, as well as in the wash-water, cinchonine is contained, if ordinary quinoidine has been employed which has not been previously purified by precipitation with an alkali. These liquids, containing cinchonine, are precipitated with tincture of galls to obtain the cinchonine in the usual manner.

The precipitated resinous substance still retains some quinine, to obtain which it is dissolved in alcohol, again mixed with a strong solution of protochloride of tin, and then further treated in the above-mentioned manner. The resinous substance so obtained is of an alkaline nature, of a bitter taste, and possesses the peculiar odor of quinoidine; it would probably yield more quinine on further treatment.

The author obtained by this process from two different samples of quinoidine, in one case 43 per cent. quinine, 9 per cent. cinchonine, and 28 per cent. resin; and in the second 40 per cent. quinine, 10 per cent. cinchonine, and 30 per cent. resin; the water amounted to 20 per cent. On precipitating 100 parts of commercial quinoidine in solution with an alkali, the precipitate obtained weighed 69 grs.—*Chem. Gaz. from Mittheilungen des Schweizer.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON. JANUARY 17. 1849

* *Asiatic Cholera in New York.*—It is wholly unnecessary for us to detail the particulars of the introduction or progress of cholera in New York, because every fact connected with it has been chronicled by all the newspapers in the Union. By a resolution of the Board of Health of that city, the physician of the quarantine was called up to report a detailed statement of the "origin, progress and character of the cholera, as the same now exists at the Marine Hospital," which has been executed by Dr. Whiting in a very concise and appropriate manner. The document appears in the form of a pamphlet, and will doubtless be extensively circulated.

People may argue the non-contagiousness of cholera, and so may medical gentlemen—and, indeed, very generally they do; and yet it is morally impossible to deny that the disease was transmitted from one person to another at Staten Island, after the arrival of the ship New York at the

quarantine ground. The manner of its extension, also, from New Orleans up the Mississippi and Ohio rivers, certainly appears like the disease being infectious; but the profession generally in the old world, as well as the new, are well satisfied that it is not strictly contagious. Leaving the question just where it is, in respect to that matter, it only remains for us to speak of Dr. Whiting's communication to the Board of Health—which is a sensible, well-digested, and to us, satisfactory official document. Without theorizing or over-exciting himself about non-essentials, he simply and plainly relates the history of the appearance of the cholera at the quarantine, with a synopsis of his mode of treatment, which seems not to have been distinguished for its success. Up to the time of the report, sixty-three cases had occurred, of whom twenty-nine had died. A large proportion were children under fourteen.

Cholera has entered and exists in our country, and its course and character will be written by those who will make themselves most familiar with its nature and progress. Communications from our medical friends, in regard to the various phases it may assume in different localities, together with such modes of treatment as may be found successful, and therefore important to be known by practitioners generally, will be promptly introduced into the pages of this Journal.

Illustrated System of Human Anatomy, Special, General and Microscopic.—A more generous-looking volume has not been placed on our table for a long while, than this new, elegant, and we believe, excellent work, by that celebrated writer, Samuel George Morton, M.D., of Philadelphia. His industry is surprising, and yet he appears to have time enough for doing, whatever he undertakes, so exceedingly well that the object in view is completely and thoroughly accomplished. His great national work, *Crania Americana*, would of itself have transmitted the author's name with distinction to posterity; but that spirit of research and inquiry which prompts men to become learned, stimulates him to continued scientific exertions. That there can be nothing particularly novel in descriptive anatomy, appears to be very generally conceded; yet the microscope is surprising us with unlooked-for and unsuspected conformations and arrangements, which are materially altering, from year to year, the old landmarks on which systems of physiology have been constructed. Dr. Morton begins his treatise with admitting that he does not expect to add much to the previous stock of anatomical knowledge; but he has certainly succeeded admirably in producing a work that will be received with satisfaction, and will no doubt be a standard one. He has judiciously selected the best parts of the writers on anatomy, the world over, and given them a location in his work in a manner at once agreeable, systematic and natural. All the plates are well executed, showing things as they are. The language is choice, the descriptions sufficiently minute to meet all exigencies, while nothing which is at all essential to the perfection of the whole is left unfinished. It is a happy talent that enables a writer to communicate whatever he has acquired, in a manner to be perfectly understood. Messrs. Grigg, Elliot & Co., the publishers, have never sent out a better specimen of typography. The type is full and distinct, and the text free from errors. There are 642 pages royal octavo, with 391 engravings on wood, almost equal to copper-plate. Before proceeding further with its contents, it must

be studied and compared with other favorite, popular works, and a second notice given at a proper period.

Clinical Surgery.—At the beginning of a course of instruction at the Pennsylvania Hospital, Geo. W. Norris, M.D., prepared the way by the delivery of a lecture, which is what might have been expected from the well-known ability of the speaker to teach in a profession which he adorns. A historical sketch of the Hospital is followed by observations upon the number of patients the past year, the surgical operations in the institution, with excellent remarks on the all-important study of the principles of surgery. Those who have passed through the ordeal of long years of practice, to take the position Dr. Norris has attained in public estimation, must be well qualified to indicate the way of eminence to others. This part of his lecture is executed with a careful hand, and the conclusion to which we arrived at the close was, that Dr. Norris may justly be regarded as one of the leading, prominent surgical authorities of his country.

Dr. Blake's Introductory Lecture.—James Blake, M.D., is professor of general and special anatomy in St. Louis University, Missouri. His introductory lecture to the present course is a sensible production. St. Louis is a central position for a school of medicine—a circumstance by no means overlooked by the professor. He is also very happy in his efforts to create a love for the study of nature, in the minds of his pupils. Some how, of late, gentlemen in high places are making it known that they don't place quite so much confidence in therapeutic agencies as they formerly did; and that is not all, the reader is sometimes left in suspense in respect to what they do believe, or what they would have others. Dr. Blake would have no sudden, surprising developments of knowledge—no unexpected discoveries. There is a certain legitimate progress to be made. You must feel with your toe, inch by inch, and never presume to grasp at a new idea till you are pretty certain it can be obtained. This is rather novel reasoning for the nineteenth century. "Never allow yourselves, therefore," he says, "to be seduced into the investigations of problems that are a great way in advance of the existing state of our certain knowledge—feel certain of the ground from which you start, and never attempt the explanation of phenomena, when this explanation involves facts, with the laws of which you are not acquainted." An occasional absurdity has crept into an otherwise valuable discourse. Dr. Blake is a worker, who carries perseverance on his frontlet. Devoted to the pursuits of science, he would impart the ardor that animates himself, to warm and cheer all the world besides.

Startling Medical College.—Ohio almost equals Pennsylvania in the number of its institutions of medicine. At Cincinnati there is the old medical school—staunch, sea-worthy, and in all respects well qualified for a successful voyage. Then there is the Eclectic school, made up of botanic, animal-magnetic, and other anomalous compounds, which are not fully comprehended; and hard by is the undisguised Simon Pure establishment, called the Botanical College, where practitioners of a certain order are manufactured with a degree of tact and expedition surprising to those

who consider education of the first importance in a medical practitioner. At Cleveland there was a regularly chartered school, well organized, which was transferred to Columbus—but whether any fragment of it remains in Cleveland, cannot be ascertained at the moment of writing. Not far from Cleveland there is still another; and lastly, at the seat of government, the Starling College has been so richly endowed by the man whose name it bears, that should it fail to meet the expectations of the community, the fault must be charged in after years to the course of instruction. In this school, the youngest in the series, Frederick Merrick, M.D., is the professor of Botany and Chemistry. On him it devolved to open the present session, in behalf of the faculty. That he accomplished the undertaking satisfactorily, is abundantly evident by the complimentary attention of the class in requesting the manuscript for publication. A prominent item of instruction in this off-hand, pleasant lecture, is this: Be careful in medicine to discriminate between what is true and what is false. Aye, there's the rub. When Dr. Merrick can clearly demonstrate an unerring method of ascertaining a point so desirable, he will have discovered the philosopher's stone. To the end of time, the schools will disagree in doctrine, and theorists, like locusts, will forever abound, to the disturbance of students, and to the injury of inductive medicine. Dr. Merrick has a disciplined mind, large benevolence, an ardent love for truth, which he would have always take the homely name of facts, and by their indications he would be influenced.

The Scalpel.—A new Journal of health, designed, according to the title, for popular as well as professional reading, edited by Edward H. Dixon, M.D., of New York, has been commenced, and without having specific days of publication, is to be issued at such times as may appear expedient. No annual subscribers are solicited, as the editor expresses his intention of discontinuing the Scalpel whenever he may judge proper. It is beautifully printed, and certainly has a large amount of purely original matter. Dr. Dixon has been a frequent contributor to our Journal in years past, and few have exhibited more ingenuity, as many of our readers are aware, in the practice of surgery. A variety of apparatus for relieving the sufferings of surgical patients, have been devised by Dr. Dixon, and are favorably known to the profession; and he has been equally happy in operations, and in the practice of a branch for which he evidently has a decided predilection. He is a vigorous, fearless, independent writer, capable of expressing himself clearly on all subjects, and we wish him good success in his new enterprise.

Washington Co. (N. Y.) Medical Society.—The anniversary meeting of the Washington County Medical Society was held on the last Tuesday of June; 1848. The following are its officers. Dr. Henry C. Gray, *President*; Dr. Simeon F. Crandall, *Vice President*; Dr. Wm. A. Collins, *Recording Secretary*; Dr. P. V. S. Morris, *Corresponding Secretary*; Dr. James Savage, *Treasurer*; Drs. S. F. Crandall, Cornelius Holmes, Hiram Corliss, *Censors*. Dr. H. C. Gray, Delegate to the American Medical Association. Dr. Hiram Corliss, Delegate to the State Med. Society.

Medical Miscellany.—Twenty cases of scarlet fever existed among the children of the Female Orphan Asylum, in this city, on Sunday last.—

Drs. Hitchcock & French, of Ashby, Mass., have recently removed a fibrous tumor of the uterus in a patient 38 years of age. The operation was performed by ligature through means of Gooch's canula. From extreme anemia and emaciation, caused by years of hemorrhage and pain, she has rapidly regained flesh, strength and life.—At the last meeting of the Paris Institute, M. Bernard and M. Bareswell presented a sample of alcohol which they had obtained from the fermentation of sugar extracted from the human liver.—In Montreal, on the 28th of December, an inquest was held on the body of Sarah Griffith, 18 years old, who died suddenly. A *post-mortem* examination of the body was had, from which it appeared that she died thus suddenly in consequence of tight lacing, which affected the heart and other internal organs.—A Singapore paper relates a marvellous tale, to the effect that, after a violent earthquake at Chantibun, the roads, the fields, and the markets, were strewn with hairs, which exactly resembled human hair, and which, when burned, emitted the usual smell of burning hair.—A dentist of Durham has lately used gutta percha for the manufacture of sets of gums for artificial teeth.—Mr. J. Murray, the eminent chemist, in a letter, recommends the introduction of electricity into hospitals and infirmaries as a therapeutic agent.—Mr. Webb, of Balsam, Eng., has operated successfully on several animals affected with lockjaw.—A cholera quarantine is in force at Kingston, Jamaica.—In Northampton, Mass., there were 80 deaths in 1848, of which 9 were between 80 and 90. The marriages were only 30.—In the Canadian Insane Asylum, two lunatics were put in the same apartment, and the result was, one of them was horribly mutilated.—In Boston, \$12,599 35, was paid for hospital money during 1848. It came out of sailors, who pay 20 cents each, a month, for the support of marine hospitals.—A note, dated Jan. 3d, from Dr. Harlow, of Cavendish, Vt., the medical attendant of Mr. Gage, who had an iron rod shot through his head, as lately reported in the Journal, says the patient is now at Lebanon, N. H., "walking about the house, and riding out, improving both mentally and physically."—A woman in Illinois has had 18 children in 10 years.—A bill for the establishment of an asylum for the insane is before the Legislature of North Carolina.—The latest accounts from New Orleans show that the cholera has much abated in that city. Cases have occurred at numerous places up the Mississippi river, at Cincinnati, and at Mobile. At New York it has ceased to exist. In London, the fatal cases for the week ending Dec. 20th, were 31, against 29 for the previous week. The total number of cases in England from the first appearance of the malady was, to Dec. 20th, 3737, whereof 1772 had proved fatal, 505 had recovered, and 1400 were under treatment, or the result not recorded. The cases in Scotland have been no fewer than 2922, whereof 1356 have perished.

MARRIED,—In Providence, R. I., Dr. W. H. Smith to Miss R. M. Stillman.

DIED,—In England, Dr. Samuel Cooper, the celebrated surgeon.

Report of Deaths in Boston—for the week ending Jan. 13th, 62.—Males, 28—females, 34.—Of consumption, 18—scarlet fever, 9—lung fever, 3—dropsy, 1—dropsy on the brain, 3—disease of the heart, 5—disease of the hip, 1—pleurisy, 1—diabetes, 1—infantile, 4—inflammation of the lungs, 2—canker, 1—accidental, 2—scrofula, 1—rheumatism, 1—croup, 2—measles, 1—child-bed, 2—apoplexy, 1—old age, 1—smallpox, 1—paralysis, 1.

Under 5 years, 22—between 5 and 20 years 6—between 20 and 40 years, 20—between 40 and 60 years, 8—over 60 years, 6.

Chloroform in Traumatic Tetanus.—A student of medicine at Columbia, Tenn., writing to a friend in this city, says: "A young physician in this town, about a year since, gave chloroform to a person previously to extracting a tooth, and, for some reason, very alarming symptoms followed. Since that time it was not used here until the day before yesterday, when on consultation, finding it highly recommended in Prof. Yandell's introductory lecture, it was determined to give it in a case of traumatic tetanus. Large doses of opium and other antispasmodics had been previously tried without effect. The experiment was witnessed by most of the physicians in Columbia, and painful apprehensions were felt for the result. Under the influence of the anæsthetic, the patient fell into an easy and refreshing slumber, a pleasant smile resting upon his countenance, which before was haggard. His muscles relaxed; his mouth was easily opened; his pulse improved; the spasms ceased. When he awoke the tetanic symptoms returned, but not with the same violence. It was administered a second time after an interval of several hours, but did not entirely overcome the muscular contractions. It was not afterwards repeated, and the patient eventually died."—*West. Journ. of Med.*

Naval Appointments.—The following Assistant Surgeons in the Navy, examined by the Medical Board recently convened at the Naval Asylum, Philadelphia, have been found qualified for promotion, and passed, viz.:

Andrew A. Henderson, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon J. Hopkinson.

Elisha K. Kane, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon J. Wilson, Jr.

Edw. Hudson, Passed Assistant Surgeon, to rank next after Passed Assistant Surgeon E. K. Kane.

Of the candidates examined for admission into the service as Assistant Surgeons, the following have been found qualified:

Francis M. Gunnell, of the District of Columbia; Jas. Suddards, of Pa.; Robert Carter, of Va.; S. Allen Engles and Edward Shippen, of Pa.; Gerard Alexander, of Ky.; Benjamin Vreeland, of N. Y.; Walter Hore, Carthon Archer, Richard B. Tunstall and Charles H. Williamson, of Va.; James F. Heustis, of La.; Arthur M. Lynah, of S. C.

The candidates will inform the Department of their respective places of residence.—*Med. Exam.*

Medical Literature.—We learn with pleasure that Dr. Stillé's work on Therapeutics is in a state of forwardness, and that the author will labor industriously at it till completed. The extensive research, discriminating judgment and practical tact of the author are sufficient guarantees that this work will be a valuable one.

Prof. Meigs's *Obstetrics*, with numerous wood-cut illustrations, and also his *Treatise on the Diseases of Infants*, are in press, and their appearance may be looked for shortly. The author's extensive experience cannot fail to furnish much of practical value, and these volumes will doubtless be a valuable contribution to our science.

We are also informed that Dr. Griffith's *Medical Formulary* is nearly ready for the press.—*American Journ. of Med. Sci.*